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This manual describes a method for the content analysis of written story-productions evoked by a standard set of pictures. The introduction sketches briefly the model of curiosity developed by Beswick (1965), the system of content analysis derived from it, and the reliability and validity of that system of analysis. It also describes a revised scoring system devised by the authors and provides some information on its reliability and validity. Since this is meant to be a "practical" scoring manual rather than a complete report on the curiosity test, more detailed information on its technical properties is furnished in a forthcoming separate publication. The manual is divided into three parts. The first gives general and specific scoring rules and examples of their application for the revised scoring scheme. The second section contains a number of excerpts from actual stories, while the third section gives the correct scoring of these stories and the rationale behind scoring decisions. (Author)

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CONTENT ANALYSIS OF STORIES FOR CURIOSITY IMAGERY: A MANUAL

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CONTENT ANALYSIS OF STORIES FOR CURIOSITY IMAGERY:

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Acknowledgement

The authors assume no credit for the origins of this scoring system. This credit is due entirely to David Beswick (1965). The present manual is a revision of his work. The pictures shown in Appendix A are also attributable to Beswick, and we are grateful to him for making them available for research.

Abstract

This manual describes a method for the content analysis of written story-productions evoked by a standard set of pictures. The introduction sketches briefly the model of curiosity developed by Beswick (1965), the system of content analysis derived from it, and the reliability and validity of that system of analysis. It also describes a revised scoring system devised by the authors and provides some information on its reliability and validity. Since this is meant to be a "practical" scoring manual rather than a complete report on the curiosity test, more detailed information on its technical properties is furnished in a forthcoming separate publication. The manual is divided into three parts. The first gives general and specific scoring rules and examples of their application for the revised scoring scheme. The second section contains a number of excerpts from actual stories, while the third section gives the correct scoring of these stories and the rationale behind scoring decisions.

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This manual is part of a systematic attempt to explore a cognitive style known as curiosity (Greenberger, 1968a & 1968b; Entwisle & Greenberger, 1968). Curiosity can be viewed as a method of creating and/or resolving uncertainty. Uncertainty is produced by stimuli with properties such as novelty, incongruity, surprise, and ambiguity. Curiosity involves (1) a receptive attitude towards, or active search for, stimuli of this kind, culminating in their becoming the focus of conscious attention; and (2) various coding processes which enable the individual to categorize and understand such stimuli. These coding efforts generally depend on the acquisition of new information through visual exploration, manipulation, and thinking or problem-solving activities. This model of curiosity has been developed and elaborated by Beswick (1965) and builds heavily on the work of Berlyne (1964). The mode of behavior it describes --an attentive and problem-solving approach to events that provoke uncertainty-- would appear to be a valuable resource for learning (Greenberger, 1968a; Hogan & Greenberger, 1968).

Beswick's system of content analysis for curiosity imagery

Beswick has translated his model of curiosity into a procedure for assessing individual differences. The procedure is projective rather than direct in nature. Stories are written in response to a standard set of pictures chosen by Beswick and reproduced in Appendix A. The pictures are cued to evoke uncertainty, since the persons pictured can readily be seen as faced with novel or strange events. In Beswick's original (1965) scoring scheme, each story could earn a maximum of 5 points based on various combinations of "major" and "minor" categories of curiosity

imagery. The major categories are summarized briefly in Table 1. The presence of a strong negative outcome in a story exhibiting curiosity reduced the score of a story to 1 or zero, depending on whether major, or only minor, imagery was present. Reliability and validity data for this scoring scheme were promising, though not abundant. Since this material is not readily available, it is summarized below.

Table 1. Brief Description of Beswick's Major Curiosity Categories[1]

(Each story can get a score of 0 to 5. The total score is the sum for four stories.)

1. Wonder-interest (WI)
   Some idea or object is the focus of interested attention.

   Ex. "He is fascinated by the rock."

2. Perceptual investigation (Pe)
   Any sensory behavior which has the general goal of finding out something.

   Ex. listening, trying to hear, staring, touching.

3. Exploratory role behavior (Eb)
   Someone is in a culturally defined exploratory role (scientist, archaelogist) and details of the exploratory behavior are given.

   Or, minus an "official" role, someone has exploratory interests.

   Ex. "Let's see what's in the attic."

4. Cue-response sequence (CR)
   An idea or object specifically described as strange, novel, is followed by (a) overt responses (other than perceptual or cognitive) such as approaching, asking, et al.; or (b) covert responses like excitement, desire to find out.

5. Cognitive acts (Co)
   Someone tries to investigate a specific problem; tries to unearth new information about it; makes guesses, devises hypotheses.

   Ex. "That boy may have put the saddle on the cow. Or maybe the cow grew up in a stable and thinks he is a horse."

[1]Categories 1-4 involve "openness to experience"; categories 4 and 5 deal with attempts to digest and incorporate experience.

Most of the reliability and validity information came from a study of 57 8th graders from predominantly middle class backgrounds. A subgroup of this sample took two curiosity tests six months apart, writing stories to two different sets of pictures. Test-retest reliability was .71, which is unusually high for scores based on projective measures. Inter-scorer reliability for two independent raters was .91. To establish the construct validity of his procedure, Beswick examined the relation between curiosity scores and scores on orderliness and interest in novelty. (It will be recalled that his model of curiosity includes the two parameters of openness to novel stimuli and interest in ordering or coming to terms with them.) Correlations with orderliness were .30 and .31 for girls and boys respectively. For the combined sample, the association is significant at the .01 level (one-tailed).[1] The item "novelty has great appeal to me" was extracted from a longer attitude questionnaire and answers were related to curiosity scores. This item correlated .42 for the sample of girls, while for boys it was zero, presumably because this item operates as part of an agreement response set for boys (cf. Couch & Keniston, 1960). In general, better validity for girls than for boys continues to be the pattern of findings.

Since curiosity should be conducive to learning, school achievement was examined. Curiosity correlated .45 with average school achieve-

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[1]Items showing the highest correlations individually with curiosity scores were: "I like to have everything in its proper place." "I do things more slowly and carefully than most people." "I like to think things through thoroughly before I act." "I always use the same system in studying." It should be noted that Beswick's model of curiosity, and this scale, are at odds with a definition of curiosity that suggests high impulsivity.

ment for girls; .27 for boys. Since the curious person theoretically searches out novel stimuli, Beswick predicted--and found--significant differences in the amount of reading engaged in by children differing on the curiosity measure. Finally, correlations with intelligence and need for achievement suggest that the curiosity procedure is measuring something distinct from these variables. Curiosity scores correlate with intelligence .13 and .29, for boys and girls respectively; the corresponding figures for n Achievement are +.21 and -.21.

Despite these promising beginnings, Beswick (personal communication) has suggested a number of revisions in the scoring scheme. Further analyses of his data revealed a complete absence of correlation between the minor categories and the total curiosity score. Similarly, the negative outcome category, which was given a strong negative weighting on theoretical grounds, was found empirically not to have a negative association with the total curiosity score. With certain pictures, on the contrary, this category was positively related to amount of curiosity imagery. Beswick (personal communication) advised that only the major categories should be retained:

> "I have found that the major category Co is the best predictor, with Pe and Eb probably acceptable while WI and CR tend to be very weak...I expect the test can be improved psychometrically by giving closer attention to the major imagery criteria..."

The remainder of this section, and the manual that follows, describes our revision of Beswick's curiosity test.

A revised system for scoring curiosity content

As part of a large-scale study of curiosity, need for achievement and other variables (briefly outlined in Greenberger and Entwisle, 1968), curiosity stories written to Beswick's pictures were obtained from approximately 700 ninth-grade youngsters. The stories were scored according to the major categories listed in Table 1, each category contributing 1 point to a total score. This extensive scoring experience led us to make a number of alterations. The main changes are as follows:

A new category, long-term curiosity and interest, was added since such imagery appeared regularly and was congruent with Beswick's model of curiosity behavior. Differential weighting of imagery in the categories Pe and Eb was instituted. Sometimes perception or exploration was clearly motivated by curiosity; sometimes the motive was ambiguous, mixed, or unrelated to curiosity (e.g. "looking for interesting stones" vs "looking for a stone to crush the insect with"). The new category and the redefined, weighted subdivisions of two of Beswick's categories, have the further advantage of increasing the potential score variation among individuals. Use of the major categories alone, as defined by Beswick, did not create a highly discriminating instrument. Finally, the negative outcome category was redefined and renamed negative consequences (to include more than the final outcome). Instances were recorded, but not scored. The relationship between anxiety or fear of harm and curiosity is of theoretical importance (Day, 1968; Penny & McCann, 1964;

Table 2. Brief Description of Revised Categories

(Each story can get a score of 0 to 11. The total score is the sum for four stories.)

1. Wonder-interest (WI)
   As in Table 1.

2. Perceptual investigation (Pe)
   + Any sensory act the purpose of which is mentioned specifically and clearly involves finding out.

   Ex. "He is looking at the rock to try to figure out its age."

   - Perceptual acts less clearly related to curiosity.

   Ex. "He looks at the sky."

3. Exploratory role behavior (Eb)
   + It must be clear that the exploration is motivated only or predominantly by curiosity.

   Ex. "They are searching for interesting shells."

   - Exploration serves other goals.

   Ex. "The mother is searching for her lost child."

4. Cue-response sequence (CR)
   As in Table 1, but responses include perceptual and cognitive behaviors.

5. Cognitive acts (Co)
   As in Table 1, except that mental acts must be clearly specified and that scoring criteria have been made more precise.

6. Long-term curiosity and interest (LC)
   Persistence in curiosity-related behavior.

   Ex. "He works on the problem night after night."

7. Negative consequences (Neg.)
   A reworking of one of Beswick's other categories, noted but not used in score. Occurrence of fear, mutilation, punishment anywhere in a story scored for curiosity.

Hogan and Greenberger, 1968), and the negative consequences category may turn out to have some use in the exploration of this relationship.[1]

The revised scoring scheme and Beswick's major curiosity categories were both used to score the stories of 109 9th graders from a school in a working class area. (These Ss are part of a large survey mentioned in Greenberger & Entwisle, 1968, and include boys and girls from average and superior I.Q. strata.) Curiosity scores were related to grades, an attitudinal item concerning women's interest in problem-solving activities, n Achievement scores, and the length of story-productions on which curiosity scores were based. Teacher ratings of curiosity were collected on 30 Ss whom the teacher knew well. Overall, Beswick's findings and ours are consistent. We find relationships of the same direction and comparable magnitude with respect to grades. The attitude item relates to the curiosity scores of girls in the expected direction, but at a non-significant level (p .10). Associations with n Achievement, however, are considerably higher in

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[1]Analysis of the same set of stories also suggests that other pictures than Beswick's may increase the validity of curiosity scores. At least one shows a rather stereotyped situation that may not yield self-relevant stories (Picture 1, the laboratory scene, often evoking "mad scientist" stories). As part of the large-scale investigation cited earlier (Greenberger & Entwisle, 1968), some rough attempts were made to create and try out other pictures. Two of these pictures are shown in Appendix B. The manual includes scoring rules and practice stories for these pictures. The relation of curiosity scores based on these pictures to other variables has not been determined as yet. However, it is clear that the "cow with a saddle" is a very poor picture, evoking uniformly low curiosity scores across all Ss; whereas "children in the attic" looks very promising. The former picture and story-content elicited by it, is included only to increase the body of training material for the potential scorer. It is not recommended for research use.

the present study than in Beswick's, perhaps because of sampling differences.[1] Teacher-rated curiosity was significantly associated with scores derived from the stories. Comparing the revised scoring system with Beswick's major category scoring, the revised system clearly improved the observed relationships by (1) strengthening the association with the women's role item; (2) decreasing the relation to n Achievement; (3) improving the association of curiosity with grades in 3 out of 4 subgroups; and (4) reducing the dependence of curiosity scores on story-length. In addition, the revised system increased the range of scores. Raters familiar with the instructions for Beswick's major category scoring and the revised manual found that the latter was more comprehensive and easier to apply. Inter-scorer reliability was .90 for a subset of 160 stories produced by 40 Ss.[2]

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[1]The relationship of curiosity scores to other variables also has been scanned for six other samples of 9th graders, all from different social class backgrounds. The data show considerable variability, and work is in progress to pin down the most important sources of variation. The preliminary guess is that the predictive power of curiosity scores will be improved by adjusting them for story-length and for score on a measure of anxiety. (The psychological literature consistently reports that anxiety interferes with curiosity.) Complete information on the validity of the curiosity measure will be reported in subsequent publications from Project 61610-03-01 and 61610-03-04.

[2]In computing reliability, the total score, rather than the particular categories selected for scoring, is the criterion. This is common practice (cf. McClelland et al, 1953).

M A N U A L

General Scoring Rules

(1) A subject may score from 0 to 11 points for each story. He receives 2 points for each of the following categories:

(Co) Cognitive Instrumental Acts

(WI) Wonder-Interest

(Pe+) Perceptual Instrumental Acts

(CR) Cue-Response

(Eb+) Exploratory Behavior

One point each is given for the following three kinds of curiosity imagery:

(Pe-) Other Perceptual Acts

(Eb-) Other Exploratory Behavior

(LC) Long-term Curiosity & Interest

If Pe+ or Eb+ can be scored, Pe- and Eb- may not be scored in addition. The final score is the sum over all stories.

(2) Each category can only be scored once for each story even if a particular kind of imagery is found several places in the story.

(3) No element of the story can be scored for more than one category. When a category is scored, the scorer must be able to point to the words in the story which he used as evidence for that particular kind of curiosity imagery, and these words can not be used for scoring other categories. See Section LC for one exception to this rule.

(4) The stories should always be scored so as to maximize the score. Where a given phrase lends itself to scoring under more than one

category, choose the category for which no other part of the story can be scored.

(5) Sometimes it is difficult to decide which of two equally weighted categories fits a story-element. The ultimate choice of one category over the other is not really important, since the total score is unaffected by the choice.

(6) For each story the presence of a negative consequence is noted, but its presence or absence does not affect the score for each story.

Rules for Scoring Specific Categories of Imagery

(Co) Cognitive Instrumental Acts

To score this category there must be a specific object upon which attention is focused. There must be some kind of problem to be solved or something to be investigated.

Some of the most commonly occurring cognitive acts will be discussed here, but any kind of cognitive act that fits the above-mentioned criteria should be scored.

Thinking, provided that it fits the criteria spelled out above, should be scored. The following examples illustrate the type of story-content that would and would not be scored.

Score:

-He is thinking about something he is going to do with the light. He wants to make it burn longer.

(specific, instrumental/ making known the unknown)

-He is thinking about what type of rock this could be.

(specific, instrumental/ making known the unknown)

Do not score:

-He is thinking about something.

(not specific/ no evidence of a problem to be solved)

-He is thinking about his sad childhood.

(specific, but no evidence of a problem to be solved)

-He is thinking of the thing he has in his hand.

(specific/ but no evidence of a problem to be solved)

-They are thinking of bringing home different things to show their parents.

(specific/ but no evidence of a problem to be solved)

Where it is doubtful whether the thinking is directed towards solving a problem or acquiring new information, do not score.

In most cases the phrase containing the cognitive act can be pointed to directly. In a few cases, the cognitive act is inferred from the context. Note the following example:

-This man was thinking about the war in Vietnam. He knew that there was nothing he could do. But there was. So he went and joined up for our country.

The first sentence alone is too vague to score. From the rest of the story, however, one can infer that his thinking about Vietnam is a problem-solving situation in which he finally makes a decision.

Reading is scored if it is reading for fun or is instrumental to problem-solving, but not if it is a duty, an activity forced upon a person, or an activity engaged in solely as an escape from boredom or inactivity. Reading a homework assignment is generally not scored, unless there is explicit interest or pleasure on the part of the student. The following are examples that, in a non-obligatory context, would be scored:

-He is reading his notes in order to find the missing formula.

-He is reading a novel.

Usually the stories in which reading occurs do not clearly mention the impetus for reading. Assume, if in doubt, that it is non-obligatory and score.

Studying or learning is scored only when the object of study is mentioned. As for reading, studying is not scored when the character acts solely out of necessity, with no evidence of personal interest. Again, given the nature of the pictures evoking this imagery, it seems wise to assume personal interest, unless there is clear evidence to the contrary, and to score the relevant story-element. Examples of scoreable material:

-He is studying electricity. (But not --He is studying-- because there is no object of study mentioned.)

-He is studying the rock he found.

-Our teacher was telling us about the solar system and he is a very good teacher. He knows a lot about the sun, the moon, the planets. We learn a lot about the universe too. We are studying a lot about rocks and how they are formed.

Hypothesis building is another cognitive act that is scored. The hypothesis does not need to be elaborated, but it must be specific. For example:

-As he looks at the rock, he guesses that it must be at least three million years old.

-He thinks the metal filament will make a longer-burning light.

Picture 4, which shows two boys with a bottle on the beach, often elicits this type of cognitive response because it is frequently imagined that the bottle has a note in it. Thus hypotheses are developed about

what the note says and where it came from, such as:

-Maybe it's a note from a pirate.

-This must have been sent by a sinking vessel.

Problem solving includes cognitive acts in which a character tries to figure out a problem, such as:

-She tries to figure out why the cow has a saddle on its back.

In order to score a negative statement about cognitive acts, it is necessary to elaborate; for example, it is not enough to say

-He can't figure out why the light glows

but it is scorable if the subject adds:

so he looks through his notes to find out.

It is important to note that the cognitive act must be stated specifically. It is not enough that a person has a problem and does something to solve it; it must be stated specifically that cognitive (mental) acts are involved in the effort to solve the problem. The following examples are not scored:

-He is trying to teach the bird to talk.

-The sub had crashed into the bottom of the sea. He pulled all kinds of buttons to try to get the sub up and he couldn't.

Picture 3, which shows a radio operator, often evokes borderline cases, but not scoreable content, illustrated in the excerpt immediately above.

The following example is scored:

-He thought of what to do to get the sub up and started to pull all kinds of buttons, but he couldn't get it up.

All clearcut decision-making situations are not "problem-solving situations ". For example, do not score:

-He is trying to decide what to eat for lunch.

The decision must involve the search for new information or new answers and, therefore, excludes such routine matters as deciding what to have for lunch.

Finally, we emphasize that a positive outcome of the problem-solving (or thinking) effort is not necessary to score for Cognitive imagery.

Caution: (Co) can be scored only once per story, despite the many varieties of cognitive imagery just described.

(WI) Wonder-Interest

This category is scored when a character is wondering about, interested in, curious about, fascinated with any object, idea or event which is the focus of present attention. It is important that the object is stated specifically. This category does not include long-term interests. (See the category LC, described later, for handling such content.)

Do score the following examples:

-She is wondering why the cow has a saddle on its back.

-The children discover a suitcase in the attic and are curious as to what is in it.

-He saw a device that interested him very much.

-Hey, look at this bottle! Joe and Jim went over and picked it up.

(Excitement over seeing a bottle is itself not enough for a WI score. The addition of some further evidence of interest --picked it up-- makes it scoreable.)

Wonder-Interest can be inferred from questions or statements about the immediate situation, such as:

-A man in his business office walks over to a strange object he found on his desk. How did it get there? Who put it there? What is it? These are questions passing through his mind.

(This passage could be scored Co instead for the thinking that is going on. See rule #5 under General Scoring Rules.)

Do not score:

-He has always been interested in science.

(This is a long-term interest.)

(Pe+) Perceptual Instrumental Acts

This category requires that the perceptual act is clearly investigatory, or has the general goal of finding out something. The purpose needs to be stated specifically.

Scoreable perceptual instrumental acts are often distinguished from nonscoreable perceptual acts by the use of active as opposed to merely re-active verbs; for example: stare, watch, look at, espy, spot, notice, gaze, peer, as opposed to see; and listen as opposed to hear. Examples to be scored are:

-The children peer into the attic in order to see what is inside.

-They couldn't make it out [what is inside the bottle] so they look inside.

-There was a scientist looking at a book. He was a very special scientist. This scientist was looking for a new experiment.

(The purpose does not need to be stated in the same sentence as the perceptual act.)

A verb that is generally too weak to score may be scored, however, if there is specific evidence of active intent, such as:

-He tries to hear what is coming in over the radio. He wants to know what the message is.

Also included as perceptual instrumental acts are those which involve careful attention, such as: "examine," "carefully observe," or "look closely."

Do not score statements of future intent or of accidental perception. Therefore, do not score:

-These boys want to examine the bottle.

(Only present or immediately past perceptual acts are scoreable.)

-He happened to look over at it.

(accidental perception)

"Looking around" is considered a perceptual act while "looking for" is regarded as exploratory.

(Pe-) Other Perceptual Acts

These acts are less clearly related to curiosity, but are nevertheless scored because they indicate a perceptual alertness. Often they are descriptions of the pictures. As in the previous category, the verbs used should involve an active, not merely reactive, perceiver. What distinguishes this category from the former is that the perceptual acts in this category do not clearly have the goal of finding out. The following examples are appropriate for this category:

-He watches the cars go by.

-He looks at her as he talks with her.

-The girl stares at the cow as she rides by.

-He spots something glimmering in the grass.

-Joe and Mary are standing outside the attic looking in to where the suitcase is.

-David looks at the helpless bird and crushes it as a symbol of his wife's death.

The context of the stories did not imply curiosity imagery.

Also utilize this weaker perceptual category rather than the stronger when there is ambiguity about whether or not there is curiosity, as in the following example:

-The boy is trying to get a bottle out of the water. One boy is looking at him getting it out of the water.

(CR) Cue-Response

Another indicator or curiosity imagery is a cue-response sequence. Evidence of both cue and response must be present in the story, and there must be a stimulus-response time sequence. It is not necessary, however, that the cue be mentioned before the response.

There are two types of cue:

(1) The cue can be any environmental or intrapsychic event described or experienced as strange, novel or unusual. If a chacter in a story defines the situation as unusual, it can be regarded as a cue regardless of whether it is culturally defined as unusual or not. An example of this latter principle is:

-Gail and Phil found a door in the house. "Maybe a secret doorway," [cue] Phil said. "Let's see what is behind it [response]." Phil's eyes became wide. They opened the door [response], but nothing was there.

(2) Sudden or unexpected changes in the environment are also satisfactory cues; for example:

-He suddenly heard a noise, and following the sound, he opened the door.

There are two general types of responses.

(1) The first type includes instrumental acts, such as asking questions, experimenting, moving toward the cue-stimulus (but not away from it). In other words, these responses are all attempts to find out more about the cue. Perceptual and cognitive acts are satisfactory responses. An example of this first type of response is:

-Tom and Jerry found a strange bottle on the beach. They picked it up to see what was in it.

(2) The second type are covert responses, such as the need to know or find out, surprise, excitement. Arousal of a long-term interest due to the introduction of the cue can also function as a response. An example of a wish to know triggered by a novel cue follows:

-A girl riding a bike by a cow with a saddle on its back wanted to know how the saddle got there.

Below are a number of no score situations:

-They heard a noise and hurried away.

(Any fear reactions or avoidance orientations can not function as a response.)

-He saw a space ship and ran home to call the police. When they got there, it was gone and so no one believed him.

(This is not scored because it is not clear that he was curious; it is likely that he was frightened.)

-He found Mrs. Weatherbee on the floor and blood all over her dress. Mr. Johnson called the police.

(Do not score cases in which the response is a duty or obligation, which could well occur in the absence of curiosity. One is supposed to call the police when one finds a dead person.)

-Two boys found a bottle with a note in it. The note said that some people were marooned on an island. The boys ran home to tell their parents.

(It is not clear that the boys were curious. It is likely that they were performing a duty, as the radio operator who answers a SOS.)

-The two boys took the strange object to the museum to sell it.

(They are acting out of a profit, not curiosity, motive.)

(Eb+) Exploratory Behavior

To score this category some kind of exploratory or investigatory behavior must be present. Sometimes it occurs in connection with a vocational role that involves exploration and discovery, sometimes not.

An exploratory role, such as scientist or inventor, is a clue that exploratory imagery may be present, but mention of the role is not sufficient for scoring. Specific exploratory behavior must be mentioned, such as experimenting, collecting unusual objects, discovering or exploring.

Score:

-He is trying to discover a cure for cancer.

Do not score:

-He is working in his lab.

(Unless the rest of the story suggests otherwise, the aim is not clearly exploratory. He could be doing routine work.)

Statements like "let's see" or "to find out" often indicate exploratory interest. The motive behind such statements has to be clearly curiosity, to earn a score for Eb+. Do score the following:

-The children are exploring the attic to find out if there are any secret doors.

"Looking for" always indicates exploratory behavior, but the motive is critical for deciding on Eb+ or Eb-, to be discussed as the next category.

(Eb-) Other Exploratory Behavior

When there are motives for the exploratory behavior other than curiosity, score under this category. Examples are:

-He is looking for his friend.
(affiliation motive)

-The mother is searching for her daughter.

-The police are looking for the fugitives.

-The spy is searching the records.

Exploring or collecting unusual things because of a school project is also in this weaker category.

One would not score the following:

-The coast guard immediately located the stranded people on Santa Cruz Island.
(It is not scored because the coast guard did not have to search or look.)

As in the cognitive category, a negative statement must be elaborated in order to be scored, so that the following is not scored:

-He dropped the camera into a hole and could not find it.
(The statement would have to be elaborated to be scored.)

(LC) Long-term Curiosity and Interest

No specific time limit is used for determining long-term interest. What is important is that a character show persistence in some kind of curiosity oriented behavior. Note the following examples:

-He has always been interested in science.

-He has spent hours trying to figure out the radio code.

-She went eight places looking for a certain kind of bird.

There is a possibility that long-term curiosity may overlap with one variety of cue-response imagery (arousal of a long-term interest due to the occurrence of a novel cue). Score both categories even if this means double-scoring the same story-element. This does not arise often with the present set of pictures and the low weighting of LC makes the redundancy less problematic than it otherwise might be.

If the amount of time is forced upon the character, is a duty, or the character has no choice, do not score LC as seen in the following examples:

-The astronaut went on an expedition around the moon. He was scheduled to be in orbit 14 days.

-It took the police three weeks of searching to find him.

Also do not score an activity which the author implies is short-term.

-He has been working only a few hours and already has constructed a new hearing device.

Negative Consequences

If a story contains evidence of disruptive anxiety (to be elaborated below) related to the curiosity imagery, it should be noted under the category of negative consequences.[1] This category does not contribute to or subtract from the total curiosity score for a story.

The first two types of disruptive anxiety cited below come directly from Beswick (1965). The third is a modification of another of his criteria.

(1) A fear reaction to the introduction of a novel stimulus or to the situation in which it occurs provided that the fear is not overcome. It could be specifically described or it could be an avoidance response which is usually indicative of fear but is not scored if there is a later approach.

(2) An affective tone which is predominantly negative -- despair, disappointment, guilt, hopelessness. There must be no statements of positive affect.

(3) The presence in a story of punishment imagery, death, mutilation, injury, or destruction to a person -- or to something he values -- who has performed curiosity behavior in the story.

Examples are:

-Two children are exploring the attic. The girl falls through some rotten boards and breaks both legs and arms.

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[1]Because the pictures are strongly cued to evoke themes of finding out, people with clinical hypotheses may find it of interest to keep track also of stories not scored for curiosity which contain negative consequences.

-Jack saw a strange stone and picked it up. He, like all preceding owners, will die before forty.

-My brother and I went exploring in the attic. There were bones lying all around and on a suitcase we saw a spider coming to get us.

-The girl looks at the cow with the saddle on its back as she rides by. While she isn't paying attention she runs into a tree.

-Billy and Joe were playing on the beach. They were pretending they were shipwrecked. Then Joe spotted a bottle out in the water. He grabbed it and yanked it open. There was a note inside. They were both excited when they read it, but then realized it was the note they sent while playing. Angrily throwing the bottle back into the water, he yelled ouch when he got a cut from it.

Practice Stories

In this section of the manual, stories or excerpts from stories are presented so that the reader may test his ability to score for curiosity imagery using the material presented in this manual.[1] There are six sections corresponding to the four Beswick pictures and to the two pictures newly devised by Greenberger and Entwisle (1968). The scorer should make a scoring sheet on which to record tallying for the stories in each practice set. Write the number of the stories down the left side of the sheet, and across the top of the sheet assign a column for each scoring category (and one for negative consequences if desired), noting the numerical value each category contributes to the total score.

Co	WI	Pe+	CR	Eb+	Pe-	Eb-	LC	Neg.	Total
2	2	2	2	2	1	1	1	0	

Note that Pe and Eb can only be scored <u>once</u> per story, in either the + or - subcategories. The possible score per story runs from 0 to 11.

The scoring for each story in the Practice Set is given in the section that follows the stories. We advise checking immediately after each story has been scored, to insure that the learner spots his errors quickly and does not perpetuate them.

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[1] Grammar and spelling have not been changed.

Picture 1

Inventor in his Laboratory

#1 The man is experimenting with some electrical instrument. He is trying to make a short wave radio from a kit. He is puzzled by all the parts and pieces that come.

#2 Ned Simmons, editor of the city newspaper is trying to figure out this evenings headline. His lead news writers turned in two extremely good articles. Always this is the case for Ned to decide which is best. Now in his darkened study room he is wondering why the particular article of John Bartes seems to draw most of the attention.

#3 The man is a scientist and he's trying to think of an experiment he just invent. He had the formula on a peace of paper but he can't find it. He won't be able to help man kind if he don't find the paper with the formula on it. He looks all around the labritory but can't seem to find it. Then he remembers that he put it in his shoe so he will have it. But when he takes off his shoe the paper is rinkled and torn, and all his work was lost.

#4 Well this story about a scincetest name Dr. C Williams. He is looking at object he found and trying to find out something about it. Dr. C Williams has been a sciencetest for many year and a good man He was born in a small call dogvillas

#5 The story is about a scientist trying to work out a problem. The problem is about a new kind of car. He wants to find a way for it to go without gas. He has worked on the problem for days and hopes to find an end to his problem.

#6 Light had always fascinated George. It was so mysterious, so beautiful. When he ran into a man named Volta, who was interested in electricity, and learned its principles, he was sure he could electrically, create light. He was so enhanced he got a working loan of $10,000 and began experimenting. And now with the 10 grand gone, he had failed. He wished he never took it on. He was so mad. He kicked his light and in anger he smashed the swit down and it worked

#7 He'd been trying for years to create the formula that would allow him to disappear. Seven years he spent hunched over his test tubes in the dark and dingy labratory. His mind wondered from the facts he was trying to put together, to the brew next to him on the table. He was testing it ever since

#8 Milton Newton, a student at a local university, was studying how electricity worked inside a vacuum. He was in a small room that he rented experimenting with electricity while reading a textbook from college. Suddenly the idea of how electricity worked in a vacuum and he wrote an extraordinary essay which helped pass that subject.

#9 He had finally accomplished the task of putting together a large, crude light bulb when Thomas Edison took a long, thoughtful look at it. After years of experimenting and experimenting he had come up with this big, unpractical light. Finally he decided he would have to make it smaller. Again he went to work. Since he knew how to make it he finished it soon.

#10 The persons are Edison and Einstein. They are discovering $E = MC^2$. The lab blew up by accident.

Picture 2

Man in his Study

#1 Professor Donald Smith is in a classroom. He is a science teacher for a well known college. He is holding a strange looking rock in his hand. He explains to his classroom that it is a very rare rock and would be terribly hard to find another like it. The class is very interesting in this rock. They ask questions as to where it can be found and if there can be more than ten rocks like it in Europe. The professore tells them it is found in Belgium and there are about 20 of them in all of Europe. So the class decides to go looking for them.

#2 Have you ever found an extraordinary rock, well I did. I took it immediately to the geology teacher in my school he examined it closely and told what type of rock it was.

#3 I have found out basicly that this rock is not gold nor silver. It can cut glass like gold and it weighs about the same as gold its size. Maybe if I find out why it's color isn't the same I can find out what it is. I will put it in the papers and any scientist who thinks he can help me may do so. Later he finds out that the rock is a piece of meteor from the sky.

#4 What was this strange object? The man looked at it with inquizitive eyes. He was puzzled for it was nothing like he'd seen before.

#5 This is the skull of an ancient dinosour I found digging in the area of Tibet. At one time this beast flew around the mountain looking for food. I think I have found a nest of this giant bird, began Jim Dewey. Around it I found the remains of many animals including man.

#6 It was an amazing thing to look at. It shined and sparkled as he turned it in his hand. It reflected the light of the study lamp as he gazes into it. It reminded him of the diamond flashing on his wife's hand, yet this light was not so vain. It reminded him of the reflection of the sunset in the blue sea, yet this light was more pure, more glorious, more fascinating. It reminded him mostly of earth, and of man, in the eyes of god, and how we must seem glorious to Him in spite of our faults.

#7 While sitting in my office at the Pentagon, a dove flew in the window with a note around his ankle. In his claws he held a olive branch which was dead. Upon removing the note the dove flew out the window. I ran to the window to see where the bird was going.

#8 He showed them the fossil he had found. Little did they realize the trouble he went throught to get. He had spent 3 long weeks in the alps trying to find it. The fossil resembled a prehistoric bird he had been studying. Now he wanted to write a book on his findings but the professors wanted to keep the information for themselves. He walked angrily from the room, slamed the door, and went to Washington. There he found someone willing to exhibit his studys in the Smithsonian. Little did he know that this was only the beginning of his career.

#9 All of the people want to know whats in the hand.

#10 I loved animals Every animal I found that wasn't owned I would keep. Everyone in the house was getting very angry. One day I found a very interesting but wierd animal out in the garden. It looked like it had a head of a dove and the body of a squirrel or some other small animal. I put it in a shoe box in my closet because I was afraid to show it to anyone else. One day my mother found it and screamed which brought everyone else into the room. My father picked it up and examined it. At the end it was sold to the zoo.

#11 Dr. James Moore looked at the strange object he was holding. As he later found out it was discovered on the shores of Rocky Island by some mine explorers. It was immediately taken to the Science Department and was annalyzed.

Picture 3

Operator at a Console

#1 He started fooling around with different devices. He saw one that interested him very much.

#2 A message had just come in over the radio. It was an S.O.S. The person speaking had ended in a loud scream. The person at the radio had believed it had come from a submarine in the Atlantic Ocean. Would they find it in time. How were they supposed to know where it was. Only one sub that had gone out into the Atlantic Ocean had not answered so they set out to find it. At last they found wedged in between 2 huge rocks. They got all of the crew off the ship safely and headed home.

#3 Beep! Beep! Harry looked at the scope. Yes he was sure now. He had done it the hearts beat perfectly. They said it couldn't be done but he did it! He hand successfully transplanted a brain. He had put a cows brain in a pig! The pig was gaining conciousness. He remembered how carefully he split the nerves and seutered in the new brain. But then, he realized he had failed, for the pig went, NOOINK.

#4 The man broke into the office building and wanted some papers to find the company's plan for a new product. After searching files and finding nothing, he began investigating the desks. On the president's desk were some strange machines and he was looking at them when he heard footsteps. The night watchman had caight him. He was taken to jail.

#5 This story is about a bad storm that have broken out in the night. The storm had blow the brige down and the man dose not have no way of getting into town for food. He try to call in but no one answer. He try and try but still no answer. He worked on tring to get somebody to answer for hours but still no answer. It soon started to thunder and lighten. All at once the lighten hit the house and got the phone to work. But it also hit him.

#6 That is Mr. Dom in this work shop he is making a bomb to kill the president. He is going to take the bomb and throw it at him. The next day the president is walking a round the white house and Mr. Dom gets behind a bush and is getting ready to throw it when it goes off and blows him up.

#7 Bob was getting the massage loud and clear. He didn't know quite what it read but he was sure it wasn't from the earth. He listened carefully. He kept trying to read the message but it was foreign. Then, on his radar screen he saw a blip. then two of them. Was it flying saucers? Would they land? Bob acted quickly. He called Air Force headquarters. They said they would set up a emergency air raid. They waited. Nothing happened. The saucers came close.

#8 Mr. Wink was working in his laboratory and he was studying a funny creature he had found on his desk. All of a sudden the creature started to grow and soon it almost cover the top of the desk. He had never seen anything like it before It was green with red legs. It climbed on Mr. Wink and some fluid came out of its mouth and Mr. Wink disintigrated.

#9 In the year 1942 Bob Jones built a radio and was fooling with it one day when he got a very odd station. He listened for a while someone was planning to rob Fort Knox. What should he do? Call the Police? No! Not until he was sure. After a while he called the police and told them everything he knew.

Picture 4

Two Boys on a Beach

#1 Well two boys were playing near the water someplace and were very mystery so the started playing the all of a sudden the saw some thing then the startin wondering what it was. It look like it was a bottol with and messase in it and the they starten reading it and it said oh! oh! you fool.

#2 Me and my friend Billy always went to the shore to collect different items of interest. We collected such stuff as drift wood, sea shells, all sorts of things. Last Saturday we went down and stayed over night. As we were walking in the sand I noticed a beer bottle with a note in it. I took the note out and it said:
Who ever finds this bottle is in great danger!
I was worried all night. Then I found out that Billy, my best friend, had done it.

#3 They were out in a field, climbing trees and fences, and just doing nothing at all of a sudden. that there were no more trees and no more fences. One of them started running and tripped over something lying on the ground. He picked it up and yelled at the other guy. They stared at the bottle in their hands, and then noticed the paper inside. They got it out, opened it, and saw it was a map. They happened to be standing on a buried treasure. They got a shovel and dug all day finally after uncovering a chest, the opened it. It was empty.

#4 The two boys went off to the beach looking for sea shells and other things, while walking along the beach looking down at the sand they see a bottle. At first they keep on walking but one of the boys notice that there is something in the bottle. They are kind of scared but there couriousity wants to know whats in the bottle. So they go over to the bottle. They take the note out and read it, it said to whomever finds this I'am having a good time.

#5 Billy and Joe were playing on the beach. They were pretending they were shipwrecked. Then Joe spotted a bottle out in the water. He grabbed it and yanked it open. There was a note inside. They were both excited when they read it, but then realized it was the note they sent while playing. Angrily throwing the bottle back into the water, he yelled ouch when he got a cut from it.

#6 Tom and Jerry where two boys who lived by the sea. While beach-combing one day they found a strange bottle. The tide had brought in the bottle no longer Jerry picked it up and noticed a peice of paper inside. Tom pulled it out. It was damp and on it was some smeared ink. They

#6 cont'd couldn't make anything out but words written in Spanish. Tom's uncle knew Spanish so they took it to him. He said the note read "s.o.s." and "MAY-DAY".

#7 One day two boys were by the sea shore. They saw a bottle that was floating in the water. They picked it up. It had an old map in it with a note. The note sayed follow this map and find gold. The two boys started to follow it. Then they finally got to the end of their search they dug up a box. In the box was a gold filling from a tooth.

#8 These two boys have been out hunting for treasure in the forest and have come across a stream. They have been hunting for quite a while and have decided to rest here. Suddenly one boy sees a bottle and calls the other boy who had wondered off. The boy here is getting the bottle and I am sure anyone can tell the rest of the story and what the note says.

#9 Joe and Bob skillfully climed into the dark cave. They would have to hurry because it was getting dark fast. There was the trail? As they neared the place, they heard footsteps behind them. They dug frantically for the chest. As their fingers touched it, they wondered what would be inside. Gold? Jewels? The footsteps were coming closer. Quickly the two boys ran out of the cave, holding the chest. They looked inside. It was empty! The sound of footsteps died away. They heard their mother calling them home for dinner.

#10 Bob and Jerry went to the beach every summer with their parents. The year they were eleven they decided to take a hike.
As they walked along the deserted beach, Bob found a bottle with a cork in it. Inside was a pice of paper. He pulled out the paper and saw it was a treasure map.
He and Jerry started pacing off. Ten yards left, five yards right, and so on. The afternoon dragged on.
Then they saw it in the distance. A black object. Running up, they realized it was a surprise for them. For there was the roeboat they had always wanted.

Picture 5

Children in the Attic

#1 There's a lot of noise in the house. The plummer had just arrived to repair the drainage system. Mark and Terry had just came back from school. Mark heard some noises and Terry and him decided to investigate. They went downstair to discover it was only the plummer.

#2 Look a box I wonder what it has in it. We got the box out and opened it and what was inside. I was a film in the box but we didn't have no film projector.

#3 Bill and Susie liked each other a lot. Even though they were only six they wanted to get married. They decided to elope. They ran up to Susie's house to the strange room got a suitcase and packed before any one noticed. They hid in Billi's basement. Everyone was frantically looking for them. They soon tired of the game and Susie decided to go home. She went up to her room and took a nap. In the evening when everyone had given up for the night they looked in her room and she was sound asleep.

#4 The little boy wants to know what's behind that little door.

#5 Jane and her brother Davis had had nothing to do that day in grandmother's big, lonely house. So they went exploring. They found a small closet in the attic leading to the eaves. The door was hard to open but David got something to pry it open and it opened with a protesting sceech. It was the they saw the suitcase sitting there. Immediately they were curious. They imagined all sorts of excitement coming from that suitcase. They were not satisfied until they had opened it. They found an old bouquet of roses that crumbled to the touch.

#6 The girl and Boy see something crawing around in the adect. They go down tell therie mother. The see that it is cong the ting cone up behine them and kills

#7 Our parents had go out for dinner that night, so my brother and I decided to go up into the attic where they told us not to go and take a look around.
Now i understand why they didn't want us up there. It was really sickning. There were bones lying all around and everything was covered with cobwebs. On them we saw a big taranchulla. It was coming to get us.

#8 These two kids have just moved into a new house and have been exploring it. They finally made their way to the top floor of this tall building, when they came upon a strange door. Of course the girl was scared, and the boy was brave but both were too curious to just walk away. They opened the door and sneakily looked in, and to there dissapointment, all they saw was an old empty suitcase.

#9 The two little kids were playing hid and go seek. They were going to hide in the attic where the person looking would never find them. They were hidden and stayed in their hiding place for several hours thinking about how the searcher would never find them. The person searching never did find them. He thought of how he left them hiding while he just left. This was a good joke. This is a fun game of hide and go seak.

#10 One day we went up into the old house across the street. We opened the door and went in side. A bat flew right over our head and went out the door. We were walking up the stairs when Jill opened a door and their was a suitcase so Jill went over and opened it and it was over 300 dollars in the bag so they lived happyly ever after.

#11 One day Mike and Darlene was taking a walk and came across a door that said keep out. Darlene said lets see what's inside there so Mike opened the door, and they were so surprise that they saw a army suitcase in their.

Picture 6

Cow with Saddle

#1 This is a story about a city girl moving into the country. At first she didn't like it but then after a while she started too. She found an old bike in the new house and she dicided to go and wash and paint it. So she did and then she went for a long ride. She liked the people very much and finally found and made many new friends.

#2 This story is about a little girl coming down the street and she see the cow and want to know why anyone wants to ride a cow. So she asks the little boy why do you want to ride a cow. The little boy looks at her like she crazy and said. Well I ask my daddy and mommy if I could have a horse and they told me no so I told them if I could not have a horse I will ride a cow. So that way I am ride the cow.

#3 One day a girl was riding down the street on her bike. She saw a little boy who looked awful sad. She stopped and asked him what was the matter. He said "My cow is sick and we don't know what is the matter with her"! So the girl looked at her and said all that is the matter is that she is going to have a calf and she doesn't feel well. So later that day the cow had her calf and the little boy was so happy that he thanked the girl till she was just off the rood. He was so happy, now he had two cows, something he always wanted.

#4 That's weird Sally thought as she rode up to a cow with a saddle on. I wonder what they use him for but she didn't long to wait for the cow started to split in half and there inside was two men laughing at her startled look. What a fool I am she rambled on down the road.

#5 Mary Smith was riding the street on her bike. As she passed a fenced in pasture she noticed a cow with a saddle on its back. She went home and reported this to her parents, who were quite amused. They bought her a cow and she went riding about the cow all over town. Soon the whole town was riding cows. The news of this spread across the whole country and cowback riding became a national pastime.

#6 The town had changed. As Mary rode through see saw houses were her grandfathers fields had been. On of the fences her father had built still stood to hold one bull. the only sign that the land had been a farm. Children played where horses once plowed and Mary went home sadened by the change.

Picture 6 cont'd

#7 This picture shows a girl riding a veclle wishing she had ahouse a strange thing happened she look across the yard a so a cow with a saddle and while she wasn't paying attention she bumps into a tree.

#8 This is a picture of little town, this is in the afternoon about 1:00. Jane is riding her bike and Johnny is play in front of his door they are friends and she ask Johnny if he wants to ride her bike but Johhny said no because he dosn't know how to ride it but Jane said I will teach you Johnny said Ok the she began to teach him.

#9 In a little town the are a farm in the outer part of town but not in the center of town. There are the Harris family. A little boy name Joe sade he wanted a horse for his birthday his parent promised he a horse so his birth came is parent did't get a horse- He went down to Mr. Jackson fram and told

#10 Sherry Jones was a new neighbors on the block one day she went sight seeing as she got down to the corner she saw a cow in the front yeard and a boy play in the dirt and ask him to they keep this cow in there yard.

#11 One day a girl saw a cow with a saddle on his back and the girl wonder as she road her bick and ask her mother whey did the cow have the saddle on his back. her mother said because they had no horse to ride.

Picture 1

Inventor in his Laboratory

#1 Eb+

Eb+ "The man is experimenting with some electrical instrument."
Do not score Co for "He is trying to make a short wave radio from a kit" because the cognitive act is not stated specifically; it could be scored Eb+ if this category was not already used.

#2 Co, WI

Co "he is trying to figure out"
WI "he is wondering why the particular article". This could have been scored Co if not for the fact that the Co category had already been used up.

#3 Co, Pe+

Co "he's trying to think of an experiment"
Pe+ "He looks all around the labritory but can't seem to find it." This is scored Pe+ rather than Pe- because the perceptual act is clearly investigatory. It is not Eb because "looking around" is regarded as perceptual and "looking for" as exploratory.

#4 Pe+

Pe+ "He is looking at object He found and trying to find out something about it." Pe+ is scored because "trying to find out" indicates that the character is curious about the object.

#5 Co, LC

Co "scientist trying to work out a problem"
LC "He has worked on the problem for days and hopes to find an end to his problem."

#6 Eb+, LC

Eb+ His interest in creating a light combined with the experiment justifies scoring Eb.
LC "Light had always fascinated George." Note this should not be scored WI because it is a long-term interest.

#7 Eb+,LC

Eb+ The whole story is an example of exploratory behavior. Specifically, though, the Eb can be scored from his many attempts to create a formula.

#7 cont'd LC "been trying for years"
Do not score Co in this story; no cognitive acts are stated specifically.

#8 Co, Eb+

Co "studying how electricity worked inside a vacuum"
Although he might study for school, the story is scored for curiosity imagery because there seems to be evidence of genuine interest in the problem.

Eb+ "experimenting with electricity"

#9 Eb+, Pe+, LC

Eb+ Thomas Edison experimenting

Pe+ "took a long, thoughtful look at it". Pe+ is scored because "thoughtful" indicates careful attention.

LC "After years of experimenting and experimenting"

#10 Eb+, Neg.

Eb+ Edison and Einstein -- discovering $E = MC^2$. Edison and Einstein are well-known scientists and it is possible to infer exploratory roles. In combination with exploratory roles, "discovering" is adequate exploratory behavior.

Neg. "The lab blew up by accident."

Picture 2

Man in his Study

#1 WI, CR, Eb+

WI class' interest in the rock.
CR cue: "strange looking rock"; response: "They ask questions as to where it can be found and if there can be more than ten rocks like it in Europe."
Eb+ "So the class decides to go looking for them."
Note: It is important to maximize the score for each story. If you did not get both WI and CR, study the story again. LC is not scored since the search for the rocks is a statement of future intent.

#2 CR, Pe+

CR cue: "extraordinary rock"; response: "I took it immediately to the geology teacher".
Pe+ "he examined it closely and told me what type of rock it was."

#3 Co, CR

Co "Maybe if I find out why it's color isn't the same I can find out what it is." hypothesis building.
CR cue: his description of the rock makes it unusual
response: He will put an ad in the paper to find out more about it.

#4 Pe+, WI

Pe+ "looked at it with inquisitive eyes". This could be scored WI, but to maximize the score, one can use the perceptual act and make it strong because of the inquisitive eyes and then also score WI for other parts of the story.
WI his questioning and puzzling. The puzzling is <u>not</u> scored for Co here as it is not elaborated enough.

#5 Eb+, Co

Eb+ "digging in Tibet".
Co His hypothesis is that an object with various remains around it must have been the giant bird's nest.

#6 WI, Pe-

WI Score for his fascination with the object as seen in his description of it as amazing and for his thinking about it.
Pe- "gazes into it".

#7 CR

CR cue: unusual sight of a dove with a note and olive branch
response: "I ran to the window to see where the bird was going."

#8 LC, Eb+, Co

LC "three long weeks".
Eb+ "in the alps trying to find it [the fossil]."
Co He had been studying a prehistoric bird.

#9 WI

#10 CR, Pe+

CR cue: scream as a sudden change in the environment
response: everyone comes in the room, or
cue: wierd animal
response: The father picks it up.
Pe+ The father examined it to find out more about it.

#11 Pe+, Eb-, CR

Pe+ "looked at the strange object". The context suggests he's looking out of curiosity.
Eb- Score for the activity of the mine explorers. Since this is a find by accident, it should be Eb- rather than Eb+.
CR cue: "strange object"
response: "taken to the Science Department and was annalyzed."

Picture 3

Operator at a Console

#1 WI

WI "He saw one that interested him very much."

#2 Eb-, Co

Eb- "they set out to find it." This is the weak category rather than the strong one because the motive is other than curiosity. It is part of their role or duty to answer an SOS.
Co "The person at the radio had believed it had come from a submarine in the Atlantic Ocean." hypothesis building.

#3 Pe-, Eb+

Pe- "Harry looked at the scope."
Eb+ Score for the experimenting Harry does with the pig.

#4 Eb-, Pe+, Neg.

Eb- "searching files", "investigating the desks". This is scored as the weak category rather than the strong because it is not clear that his motive is curiosity. He is probably searching for the plans in order to sell them and make money.
Pe+ "looking at them [strange machines]".
Neg. "The night watchman had caight him. He was taken to jail."

#5 The story is not scored. Neg.

It is not clear that there is curiosity imagery.
There is a negative consequence, but not related to a curiosity theme.

#6 The story is not scored. Neg.

Making a bomb in itself is not exploratory. His motive is probably hatred.
There is a negative consequence, but not related to a curiosity theme.

#7 Pe+, CR, Co

Pe+ "He listened carefully."
CR cue: message that wasn't from earth; response:"kept trying to read the message". By using his attempts to read the message as the response rather than "listening carefully ", one can score two categories rather than one and thus maximize the score.

#7 cont'd Co Hypothesis building: "Was it flying saucers? Would they land?" Bob's response (acted quickly) strongly suggests that he is the one who is asking these questions based upon what he has just heard and seen. If it were clear that the author was asking the questions and not the character, it would not be scored.

#8 Co, Neg.

Co "studying a funny creature".
Neg. related to curiosity in the story. The creature destroyed Mr. Wink.
There is no score for Eb as working in the lab is not enough to score.
The growing creature could be a cue, but there is no response.

#9 CR or Pe+, Co

CR cue: "he got a very odd station."
response: "He listened for a while" or
Pe+ "He listened for a while". One can infer curious behavior and, therefore, score + rather than - because he's trying to find out more about the odd station and what he heard by listening. Remember CR or Pe+ can be scored, but not both.
Co The questions he raises are specific mental acts.

Picture 4

Two Boys on a Beach

#1 CR, WI

CR cue: "It look like it was a bottol with and messase in it."
The bottle with a message in it is a novel occurrence.
response: "and they starten reading it".

WI "wondering what it was".

#2 Eb+, CR

Eb+ "Me and my friend Billy always went to the shore to collect different items of interest."

CR cue: "I noticed a beer bottle with a note in it."
response: "I took the note out and it said:"
It is possible to score Pe-,and not Cr, for "noticed a beer bottle ", but in order to maximize the score, CR should be used.

#3 Pe-, CR, Eb-

Pe- "stared at the bottle".

CR cue: "noticed the paper inside [the bottle]".
response: "They got it out, opened it, and saw it was a map."

Eb- "They got a shovel and dug all day finally after uncovering a chest, the opened it." There is probably a profit motive so this is scored Eb- rather than Eb+.

#4 Eb+, Pe-, CR, WI

Eb+ "looking for sea shells and other things".

Pe- "looking down at the sand they see a bottle."

CR cue: "the boys notice that there is something in the bottle"
response: "They take the note out and read it."

WI "but their couriousity wants to know whats in the bottle."
This is scored even if they are "kind of scared" because they overcome the fear.

#5 Pe-, CR, Neg.

Pe- "Then Joe spotted a bottle out in the water."

CR cue: "There was a note inside."
response: "They were both excited when they read it."

Neg. "Angrily throwing the bottle back into the water, he yelled ouch when he got a cut from it."

#6 Eb+, Pe-, CR

Eb+ The two boys were beachcombing.
Pe- "noticed a peice of paper inside."
CR cue: "strange bottle", response: "Jerry picked it up." or
cue: "on it was some smeared ink. They couldn't make anything out but words written in Spanish." response: "Tom's uncle knew Spanish so they took it to him."

#7 CR, Eb-

CR cue: "It had an old map in it with a note."
response: "The boys started to follow it."
Note that a bottle floating in the water is not considered strong enough to be a cue.
Eb- "Then they finally got to the end of their search they dug up a box."

#8 Eb-, WI

Eb- "hunting for treasure". There is a financial motive.
WI There is excitement over seeing the bottle: "Suddenly one boy sees a bottle and calls the other boy who had wondered off."
There is evidence of additional interest: "The boy here is getting the bottle."

#9 Eb-, Pe+, WI

Eb- "climbed into the dark cave.... Where was the trail?...They dug frantically for the chest." It is scored Eb- rather than Eb+ because of the financial motive.
Pe+ "They looked inside." It is clear that they are looking because they are curious.
WI "As their fingers touched it, they wondered what would be inside."

#10 Eb-, CR

Eb- They search for treasure.
CR cue: "Bob found a bottle with a cork in it. Inside was a pice of paper."
response: "He pulled out the paper."

Picture 5

Children in the Attic

#1 CR

CR cue: "heard some noises"
response: "decided to investigate".
It would be possible to score Eb+ instead of CR for "decided to investigate" and for "They went downstair to discover it was only the plummer."

#2 WI

WI "Look a box I wonder what it has in it."

#3 Eb-, Pe-

Eb- "Everyone was frantically looking for them."
Pe- "looked in her room".

#4 WI

#5 Eb+, WI, CR

Eb+ "So they went exploring."
WI "Immediately they were curious [about what the suitcase]."
CR cue: "They imagined all sorts of excitement coming from that suitcase."
response: "They were not satisfied until they had opened it."

#6 The story is not scored for curiosity imagery. Neg.

Neg. "kills".

#7 Eb+, Neg.

Eb+ "decided to go up into the attic... and take a look around."
Neg. "There were bones lying all around and everything was covered with cobwebs. On them we saw a big taranchulla. It was coming to get us."

#8 Eb+, CR, WI, Pe+

Eb+ The kids are exploring the house.
CR cue: "strange door"
response: "opened the door".
WI "curious".
Pe+ "sneakily looked in". They are looking because they are curious.

#9 Eb-

Eb- The people are searching for the kids.

#10 The story is not scored.

#11 Eb+

Eb+ "lets see what's inside" indicates exploratory interest and they do explore by opening the door.

Picture 6

Cow with Saddle

#1 The story is not scored.

#2 WI, Pe-

WI "she see the cow and want to know why anyone wants to ride a cow. So she asks the little boy why do you want to ride a cow."
Pe- "The little boy looks at her like she crazy and said."

#3 Pe-

Pe- "So the girl looked at her."
Do not score CR for "She saw a little boy who looked awful sad. So she stopped and asked him what was the matter." There is nothing strong enough to be considered a cue ("sad" boy doesn't qualify).

#4 WI

WI "I wonder what they use him for."

#5 Pe-, CR

Pe- "noticed a cow with a saddle on its back."
CR cue: The parents hear about a strange cow.
response: amusement and cowback riding.

#6 The story is not scored.

#7 Pe-, Neg.

Pe- "she look across the yard."
Neg. "while she wasn't paying attention she bumps into a tree."

#8 The story is not scored.

#9 The story is not scored.

#10 Eb+, CR

Eb+ "went sight seeing."
CR cue: "She saw a cow in the front yeard"; response: "ask him to they keep this cow in there yard."

#11 CR

CR cue: "a cow with a saddle on his back"
response: "ask her mother whey did the cow have a saddle on his back."

Do not score WI; it is not clear what she wonders about; the object is not stated specifically.

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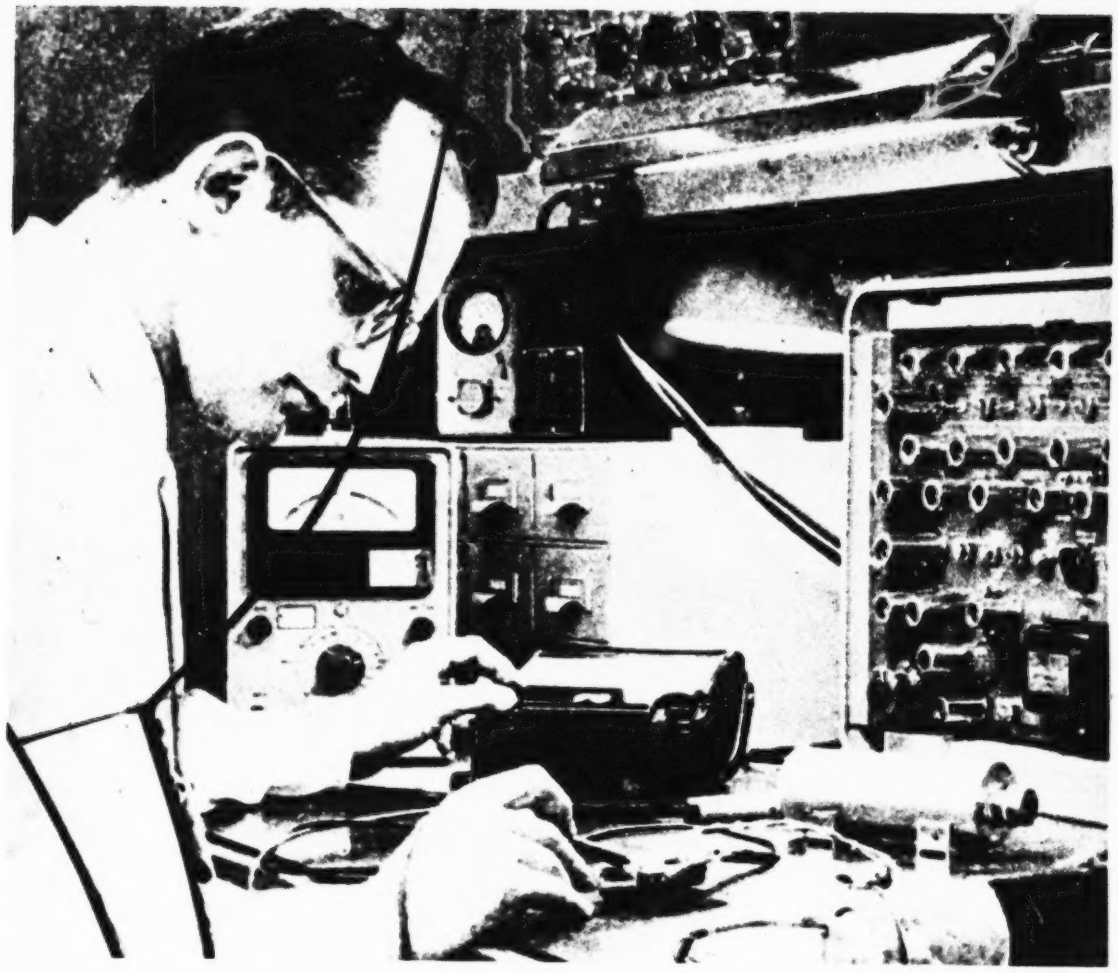
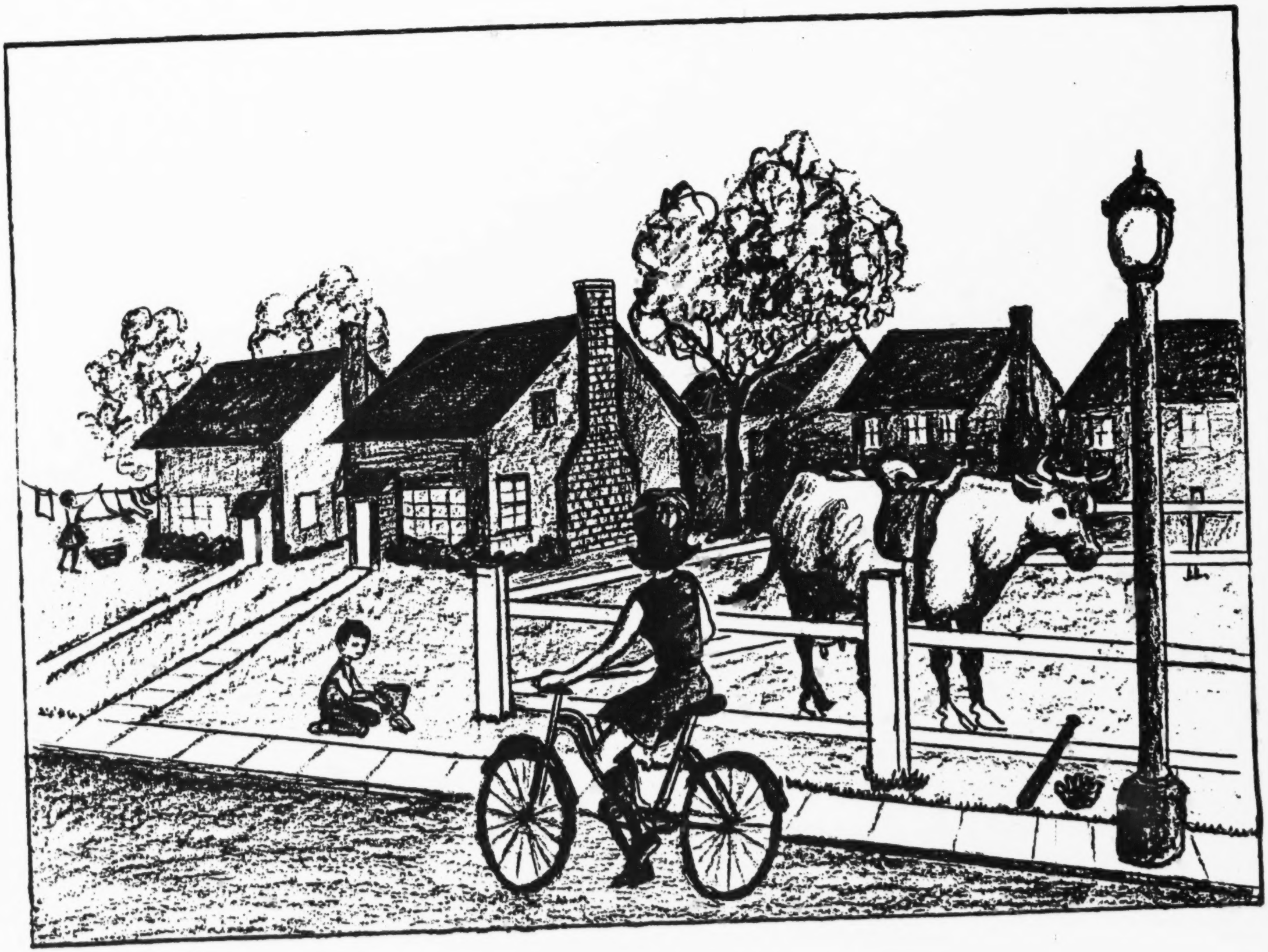
Appendix A



Appendix B

The next picture is intended for training purposes only.

Field-testing of the picture indicates that it elicits curiosity scores in an extremely narrow range and is, therefore, not useful.



Appendix C

Beswick's Story-Writing Instructions
(slightly altered)

I think you will enjoy what we are going to do today. A group of people are collecting stories made up by young people. They want to know what kind of stories boys and girls your age can make up on their own when they really let their imagination go. They would appreciate your helping them by writing some imaginative stories.

I have some pictures to show you to help you get started. You can build each story around a picture. I will pass out a booklet containing 6 pictures, for basing 6 stories on, in a few moments.

It will help you to think out your story if you ask yourself when you look at the pictures:

What is going on? Who are the people?

What happened in the past to lead up to this situation?

What are the people thinking?

Do any of them want anything? What do they want?

What will happen afterwards? What will be done?

Now don't just stick to answering these questions. They are only a guide. Your imagination will supply the rest.

You don't have to worry about spelling and grammar. The stories will not be given a grade or anything of the sort, and no one connected with the school will see them. We are only interested in the type of stories boys and girls of your age can think up.

There are no right or wrong kinds of stories. Any kind of story is all right. Don't just describe how the picture looks, but write the story that comes to your mind when you look at the picture.

Beswick's Story-Writing Instructions cont'd

Remember, a story should have a beginning, a middle, and an end. You will need to write quickly because you will only have 5 minutes to write a story for each picture. I will tell you when the time is nearly up. Then try to finish off and tell us how it ends. If you don't finish by the time I say "stop", you will have a little time later to go back and finish it. We will begin each story on a new page. The important thing is to write an interesting and imaginative story which you make up yourself.

(At the top of each story-writing page, the five questions mentioned in the instructions are repeated.)